

Mineral Industry Surveys

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SULFUR IN JULY 2005

During the month, production of recovered elemental sulfur was 768,000 metric tons, according to the U.S. Geological Survey. July production was the same as that of June 2005 and 7% lower than that of July 2004. Shipments were virtually the same as those of June 2005. Producers' ending stocks for July 2005 were 177,000 tons.

Import and export data for July 2005 were not available at the time of publication and will be published in the Sulfur in August 2005 Mineral Industry Surveys along with apparent consumption. Imports of recovered sulfur for June 2005 were estimated to be 210,000 tons; exports were 56,000 tons. Imports of sulfuric acid for June 2005 were 189,000 tons; exports were 38,000 tons.

Significant adjustments have been made to the sulfur import data. Reports from the U.S. Census Bureau appear to underreport sulfur imports, especially material from Canada. The revised figures are based on Census information and data from personal communications with industry experts.

Update

Hurricane Katrina, which struck the Gulf Coast region of Alabama, Louisiana, and Mississippi on August 29, 2005, forced refineries in the area to close down in advance of the hurricane and caused significant damage at several refineries. Prior to the hurricane, eight refineries in Louisiana and Mississippi closed down to protect their employees and equipment. Four of those were able to restart relatively quickly because they received minimal damage. Four others remained closed in mid-September and were still assessing their damage.

For the refineries affected, total monthly production averages about 127,000 tons, 21% of average monthly sulfur production for the entire country. As a result, sulfur production is likely to

be lower for August because eight refineries were closed for a few days. Four of those came back on-stream within 1-2 weeks after the hurricane. September production is likely to be significantly lower because these closures extended into the beginning of the month. The four refineries that remained closed through at least September 19 represented about 7% of domestic production.

Chevron Corp.'s Pascagoula, MS, refinery remained closed; the company reported that it expects to begin to restart the refinery in mid-October, and reach full production by mid-November, barring any additional weather emergencies (Chevron Corp., 2005). No estimates were available for when the other refineries will be operating again. ConocoPhillips Co.'s Alliance refinery, Exxon Mobil Corp.'s Chalmette refinery, and Murphy Oil Corp.'s Meraux refinery are all located near New Orleans, LA (Energy Information Administration, 2005¹).

Reference Cited

Chevron Corp., 2005, Chevron reports all employees safe, begins product imports at Pascagoula refinery: Chevron Corp. press release, September 19, 4 p.

Internet Reference Cited

Energy Information Administration, 2005, Daily report on Hurricane Katrina's impact on U.S. Energy—Hurricane Katrina's impact on the U.S. oil and natural gas markets, accessed September 20, 2005, at URL http://tonto.eia.doe.gov/oog/special/eia1_katrina.html.

¹A reference that includes a section mark (§) is found in the Internet Reference Cited Section.

TABLE 1
SALIENT SULFUR STATISTICS¹

(Thousand metric tons)

Period	Production			Shipments, all sources	Ending stocks ³
	Petroleum ²	Natural gas	Total		
2004:					
January-December	7,390	1,990	9,380	9,410	XX
January-July	4,250	1,170	5,420	5,430	XX
July	650	173	823	813	202
August	651 ^r	173 ^r	824	838	189
September	599	155	754	757	186
October	598	163	761	765	183
November	622	167	789	771	200
December	664	167	831	846	185
2005:					
January	571	169	740	740	179
February	547	156	703	696	188
March	585	169	754	755	184
April	598	157	755	756	168
May	612 ^r	166	778 ^r	766 ^r	178
June ^r	610	158	768	765	178
July ^p	614	155	768	767	177
Total	4,140	1,130	5,270	5,250	XX

^pPreliminary. ^rRevised. XX Not applicable.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes a small quantity from coking operations.

³Subject to inventory adjustments.

TABLE 2
U.S. IMPORTS OF SULFUR¹

(Thousand metric tons and thousand dollars)

Period	Canada		Mexico		Total, all countries ²	
	Quantity ^e	Value ³	Quantity	Value ³	Quantity ^e	Value ³
2004:						
January-December	2,010	31,300	545	28,200	2,850	76,800
January-June	1,060	17,000	270	15,600	1,510	42,000
June	180	2,560	49	2,440	247	5,980
July	160	2,790	54	2,550	251	7,150
August	160	2,050	35	1,780	221	5,290
September	160	2,460	49	2,650	240	6,850
October	160	1,740	51	2,170	220	4,370
November	150	2,650	31	1,240	186	5,700
December	160	2,660	55	2,200	226	5,400
2005:						
January	150	2,070	31	1,070	224	4,730
February	130	2,130	50	1,930	230	6,080
March	140	2,320	40	1,640	180	4,050
April	140	2,530	47	1,840	224	5,830
May	140	1,890	40	1,570	221	5,140
June	140	2,460	40	1,780	210	5,670
Total	840	13,400	248	9,820	1,290	31,500

^eEstimated.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²May include other countries not listed.

³Declared customs valuation.

Sources: U.S. Census Bureau data as adjusted by U.S. Geological Survey and PentaSul North America Sulphur Service.

TABLE 3
U.S. IMPORTS OF SULFURIC ACID¹

(Thousand metric tons and thousand dollars)

Period	Canada			Europe			Total, all countries ²		
	Quantity	Sulfur content	Value ³	Quantity	Sulfur content	Value ³	Quantity	Sulfur content	Value ³
2004:									
January-December	1,920	628	72,500	206	67	6,670	2,390	780	86,300
January-May	978	319	32,200	74	25	1,240	1,130	369	36,600
June	166	54	6,350	11	4	247	192	63	7,860
July	160	52	5,660	10	3	357	172	56	6,230
August	133	43	4,920	33	11	937	194	63	6,250
September	150	49	5,080	29	9	1,090	206	67	6,480
October	176	58	6,450	19	6	946	215	70	7,480
November	160	52	5,930	11	4	289	218	71	7,500
December	140	46	4,970	30	10	655	251	82	7,610
2005:									
January	173	57	5,990	30	10	840	248	81	9,490
February	174	57	6,190	(4)	(4)	18	213	70	7,820
March	183	60	7,080	32	10	759	254	83	8,590
April	191	63	7,770	10	3	629	250	82	9,660
May	158	52	6,370	--	--	--	192	63	7,080
June	144	47	5,360	--	--	--	189	62	6,380
Total	1,020	336	38,800	72	24	2,250	1,350	441	49,000

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²May include other countries not listed.

³Declared customs valuation.

⁴Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 4
U.S. EXPORTS OF SULFUR AND SULFURIC ACID¹

(Thousand metric tons and thousand dollars)

Period	Sulfur		Sulfuric acid		
	Quantity	Value ²	Quantity	Sulfur content	Value ²
2004:					
January-December	949	63,300	204	67	21,300
January-June	377	20,100	84	27	11,200
June	36	2,000	26	8	1,610
July	19	1,720	13	4	1,280
August	157	11,500	40	13	3,210
September	107	6,590	11	4	1,090
October	127	7,250	23	8	1,850
November	31	2,280	20	7	1,590
December	130	8,740	13	4	1,120
2005:					
January	22	1,740	13	4	1,590
February	72	5,040	28	9	2,230
March	41	6,270	31	10	2,270
April	94	6,010	51	17	3,280
May	16	1,850	26	8	2,560
June	56	5,920	38	12	3,630
Total	301	26,800	187	61	15,600

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Declared f.a.s. (free alongside ship) valuation.

Source: U.S. Census Bureau.

TABLE 5
U.S. CONSUMPTION OF SULFUR¹

(Thousand metric tons)

Period	Domestic sources ²	Imports ^c	Consumption
2004:			
January-December	8,470	2,850	11,300
January-June	4,250	1,510	5,760
June	744	247	991
July	794	251	1,050
August	681	221	902
September	650	240	890
October	638	220	858
November	740	186	926
December	716	226	942
2005:			
January	718	224	942
February	624	230	854
March	715	180	895
April	662	224	886
May	750 ^r	221	971 ^r
June	709	210	919
Total	4,180	1,290	5,470

^cEstimated. ^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Calculated as shipments minus exports.

TABLE 6
RECOVERED SULFUR PRODUCED AND SHIPPED IN THE UNITED STATES,
BY PAD (PETROLEUM ADMINISTRATION FOR DEFENSE) DISTRICT¹

(Thousand metric tons)

District and source	July 2005 ^p		June 2005		January - July 2005 ²		January - July 2004 ²	
	Production	Shipments	Production	Shipments	Production	Shipments	Production	Shipments
PAD 1:								
Petroleum and coke	16	16	18	19	130	131	139	142 ^r
Natural gas	7	7	2	2	24	24	13	13
Total	23	23	20	21	155	156	152	154
PAD 2:								
Petroleum and coke	90	89	86	87	580	580	547 ^r	549 ^r
Natural gas	3	4	3	3	24	24	24 ^r	25 ^r
Total	93	90	89	90	604	604	571 ^r	574 ^r
PAD 3: ³								
Petroleum and coke	396	401	388 ^r	390 ^r	2,640	2,640	2,750 ^r	2,760 ^r
Natural gas	39	39	41	42	292	297	308 ^r	310 ^r
Total	435	440	429 ^r	432 ^r	2,930	2,940	3,060 ^r	3,070 ^r
PAD 4 and 5: ⁴								
Petroleum and coke	112	108	118	116	792	768	812 ^r	820 ^r
Natural gas	105	103	112 ^r	106 ^r	790	781	821 ^r	815 ^r
California	90	87	97 ^r	95 ^r	626	601	620 ^r	621 ^r
Total	217	211	230 ^r	222 ^r	1,580	1,550	1,630 ^r	1,640 ^r
Grand total	768	767	768 ^r	765 ^r	5,270	5,250	5,420 ^r	5,430 ^r

^pPreliminary. ^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²May include revisions.

³Includes the U.S. Virgin Islands.

⁴Quantities produced and shipped in California included in petroleum and natural gas. California total shown for information purposes only.

TABLE 7
COMPARATIVE SULFUR AND SULFURIC ACID STATISTICS¹

(Million metric tons per year [annualized basis]
and dollars per metric ton for period shown)

	2005			2004
	July	June	Total	total
Production	9.04 ^p	9.34 ^r	9.07 ^r	9.38
Shipments	9.03 ^p	9.31 ^r	9.03 ^r	9.41
Exports of sulfur	NA	0.68	0.61	0.95
Imports of sulfur:				
Canada	NA	1.70 ^e	1.69 ^e	2.01
Mexico	NA	0.49	0.50	0.55
Total ²	NA	2.56 ^e	2.60 ^e	2.85 ^e
Exports of H ₂ SO ₄	NA	0.46	0.38	0.20
Imports of H ₂ SO ₄ :				
Canada	NA	1.75	2.06	1.92
Europe	NA	--	0.15	0.21
Total ²	NA	2.30	2.71	2.39
Consumption: ³				
Domestic sources	NA	8.63	8.43	8.35
Imports	NA	2.56 ^e	2.60 ^e	2.85 ^e
Total	NA	11.18	11.02	11.21
Sulfur export values ⁴	NA	\$106	\$89	\$67
Sulfur import values: ⁴				
Canada	NA	\$18	\$16	\$16
Mexico	NA	\$44	\$40	\$52
Average	NA	\$27	\$24	\$27
H ₂ SO ₄ export values ⁴	NA	\$95	\$83	\$105
H ₂ SO ₄ import values: ⁴				
Canada	NA	\$37	\$38	\$38
Europe	NA	--	\$31	\$32
Average	NA	\$34	\$36	\$36

^eEstimated. ^pPreliminary. ^rRevised. NA Not available. -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes other countries not listed.

³Because July trade data were not available, July consumption was not determined.

⁴Average value per ton for most recent data available.